at least one heat source or heat sink, thermally coupled to said fluid conduit, for providing a temperature gradient having a significant component substantially aligned with the electrophoretic motion of one or more ionic analytes so as to form an electrophoretic velocity gradient within said fluid conduit; and

a source of bulk fluid flow for providing flow of said ionic buffer solution in said fluid conduit, in a direction opposite to the electrophoretic motion of at least one of said one or more ionic analytes;

whereby said at least one of said one or more ionic analytes will accumulate or be focused at at least one point along said temperature gradient, the pH at said at least one point being unequal to the isoelectric point of said at least one of said one or more analytes that are focused at said at least one point.

26. The fluid device of claim **25**, wherein said temperature dependent property is ionic strength and said temperature gradient establishes a gradient in the ionic strength of said ionic buffer solution.

27. The fluidic device of claim **26**, wherein said fluid conduit comprises a microchannel formed in a substrate, having a geometry with at least one spatial dimension on the order of micrometers, and where a temperature gradient is applied to said substrate.

28. The fluidic device of claim **26**, wherein said fluid conduit comprises a channel formed in a substrate and having a geometry with at least one spatial dimension on the order of at least one millimeter, and where a temperature gradient is applied to said substrate.

29. The fluidic device of claim **26**, wherein said fluid conduit comprises a channel formed in a substrate and having a geometry with at least one spatial dimension on the order of at least one centimeter, and where a temperature gradient is applied to said substrate.

30. The fluidic device of claim **26**, wherein said at least one heat source comprises a power supply for applying an electrical current to said fluid conduit to thereby generate the temperature gradient in said ionic buffer solution by Joule heating.

31. The fluidic device of claim **26**, wherein said at least one heat source comprises a heated block for providing thermal energy to said fluid conduit.

32. The fluidic device of claim **31**, wherein said at least one heat sink further comprises a cooling block spaced from said heated block and thermally coupled to said fluid conduit for removing thermal energy from said fluid conduit.

33. The fluidic device of claim **31**, further comprising a thermally conductive adhesive disposed between said heated block and said fluid conduit.

34. The fluidic device of claim **26**, wherein said at least one heat sink comprises a cooling block for removing thermal energy from said fluid conduit.

35. The fluidic device of claim **34**, wherein said heat source comprises a power supply for applying an electrical current to said fluid conduit to thereby generate the temperature gradient in said fluid conduit.

36. The fluidic device of claim **26**, wherein said fluid conduit comprises a capillary tube.

37. The fluid device of claim **25**, wherein said temperature dependent property is pH and said temperature gradient establishes a gradient in the pH of said ionic buffer solution, and whereby analytes are focused at a pH other than the isoelectric points of the respective analytes.

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